

## Tech Tip: Fuel Module and Fuel Tank Replacement

### \*\*\* PLEASE READ BEFORE INSTALLING \*\*\*

#### **TIP #1**



#### **FUEL MODULE REPLACEMENT**

Installation Tips: Things we've learned the hard way.

Thank you for your purchase of a replacement fuel module. We have three tips we would like to share with you. Prior to installation, we have found it beneficial to cycle the fuel level float arm up and down about 20 times. This will help the resistor board to operate correctly on a new module. While the module is on your work bench, we recommend that you do this because the silver used on the level sender's resistor board contact surface may have become oxidized. This oxide film creates a nonconductive barrier and makes resistance readings erratic and inconstant.

#### The Test Data

To test for conductivity, follow the 2 wires from the resistor board to the electrical connector on top of the module. You will want to contact the corresponding pins with each of your multimeter leads. Please make sure that your multimeter leads have good contact

and do not move around during testing. Move the float up and down in a gentle controlled manner until you read a consistent resistance range up and down in relation to the location of the float arm.

Here are the values you should observe

1994-1997 Empty = 115 ohms Full = 5 ohms

1998-2010 Empty = 220 ohms Full = 20 ohms

2011-2018 Empty = 1000 ohms Full = 50 ohms

If you find that your resistance values do not correspond with the information above, please contact us for assistance.

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### **TIP #2**

The Modules have an arrow pointing towards the front of the vehicle. Please look over the top of your new module to identify this arrow and make sure it is facing directly towards the front of the vehicle. Later model modules will have a locating tab that will easily be orientated to ensure correct installation. Following the arrow tip will ensure that the float does not contact the sides of the fuel tank and therefore restricting its movement up and down.

## TIP #3 REMOVE THE BED OR DROP THE FUEL TANK?

Regardless of your choice on how to access the fuel sending unit, you will want to drive the truck until the tank is close to empty.

If you choose to remove the bed, start with the big bolts that hold the bed down. Second Generation body style trucks use 15mm to hold the bed down. Third Generation and newer use 18mm hardware. Long beds will have 8 bolts and short beds will have 6 bolts. Once these are loose, remove the filler neck assembly by removing the 3 T20 screws inside the fuel door. Then disconnect the tail light wiring, ground strap at front passenger side of bed, and anything else that will keep the bed from being lifted. Call three friends, lift the bed off and set it to the side. Sounds too easy, right? Truthfully, we like the remove the bed technique because it gives you access to those pesky fuel line release "tangs" and the pinch-this, pull-that electrical wires. Use blue Loctite on bed bolts during reassembly.

If you choose to drop the tank, you will want to spray the tank strap bolts with a penetrating oil prior to removal. This is typically an issue in trucks that are exposed to rust promoting conditions. The nut is a 15mm, and requires a deep socket. Some newer trucks require a socket that is extra deep. If you are dropping the tank by yourself, 2 jacks are needed to properly balance the tank. You may also want to use a 2x6 or something similar to distribute the weight of the tank on the jacks. We have found that if the tank is lowered just enough to not kink the fuel line, vent, or wiring, this will make it much easier to access and disconnect things.

Either task is not a fun job, but rather a great opportunity to inspect the internals of your fuel tank to make sure that it is free of algae dirt and debris. If algae is found, there are specific biocide products made to clean the fuel tank that can be found at your local auto parts store. Another option is to take your fuel tank to a facility that can hot tank clean your fuel tank back to new condition. We have found that our local radiator repair shop offers this service.

**Torque Specs** 

Tank strap nut = 30 Ft. #

Module locknut = 18-32 Ft. #